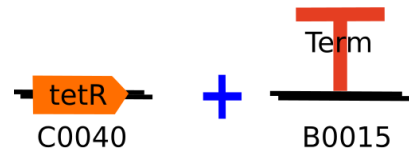


Assembly:

Tet\_term



1<sup>st</sup> Day:

EXSP Digestion (see **Enzymatic Digestion Protocol**)

|   | Part  | Size   | ng/μl |
|---|-------|--------|-------|
| 1 | C0040 | 685 bp | 149   |
| 2 | B0015 | 129 bp | 130   |

|   | Volume to 1,0 μg (μl) | Buffer 10x (μl) | BSA (μl) | Enzyme 1 | Volume (μl) | Enzyme 2 | Volume (μl) | H <sub>2</sub> O to 50μl (μl) |
|---|-----------------------|-----------------|----------|----------|-------------|----------|-------------|-------------------------------|
| 1 | 6.7                   | 2 (M)           | -        | E        | 1           | S        | 1           | 9.3                           |
| 2 | 7.7                   | 2 (M)           | 2        | E        | 1           | X        | 1           | 6.3                           |

| Final Plasmid | Resistance      |
|---------------|-----------------|
| pSB1C3        | chloramphenicol |

Gel purification

- See PureLink® Quick Gel Extraction Kit Invitrogen™ manual
- Quantify digestion products

| Parts | ng/μl |
|-------|-------|
| C0040 | 11.5  |
| B0015 | 14    |

**Obs:** 260/280 in a quality parameter that tells you if your sample is contaminated with proteins. The greater it is compared to 1 the less contaminants you have.

### 3<sup>rd</sup> Day:

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Ligation (see **Ligation Protocol**)

|                             |       |     |
|-----------------------------|-------|-----|
| Part containing the plasmid | B0015 | 5.3 |
| Insert                      | C0040 | 3.3 |
| 10x T4 DNA Buffer           | 0.4   |     |
| T4 DNA ligase 1u            | 2     |     |
| H2O to 20μl                 | 9     |     |

**Obs:** To determinate the amount of DNA necessary we used the following equation

$$\text{Insert ng} = \text{plasmid ng} \times \text{insert bp} / \text{plasmid bp} \times \text{insert: plasmid ratio}$$

- Incubate overnight at 37°C.
- Prepare and sterilize in the autoclave tubes with 6 ml of liquid LB medium.
- Prepare glycerol 40%

### 2<sup>nd</sup> Day:

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Transformation (see **Transformation Protocol in Escherichia coli DH5-α**)

- Organism: E. coli DH5-α
- Selection: Chloramphenicol

### 4<sup>th</sup> Day:

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Confirmation with NotI.